

USPS-T-19

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POSTAL RATE COMMISSION  
WASHINGTON, D. C. 20268-0001

POSTAL RATE COMMISSION  
OFFICE OF THE SECRETARY

POSTAL RATE AND FEE CHANGES, 2000

Docket No. R2000-1

DIRECT TESTIMONY  
OF  
JOHN T. PICKETT  
ON BEHALF OF THE  
UNITED STATES POSTAL SERVICE



Table of Contents

1		
2		
3	LIST OF LIBRARY REFERENCES .....	i
4	AUTOBIOGRAPHICAL SKETCH.....	ii
5	I. PURPOSE AND SCOPE OF TESTIMONY .....	1
6	II. NETWORK PREMIUM CALCULATIONS .....	1
7	III. NEW CNET PREMIUM DATA SOURCE .....	2
8	IV. CALCULATION OF CNET DISTRIBUTION KEY .....	3
9	V. ALASKA AIR ADJUSTMENT FACTOR .....	3
10	VI. DISTANCE-RELATED TRANSPORTATION COSTS.....	4
11	VII. CALCULATION OF EAGLE DAYNET COSTS .....	4
12		

1       **List of Library References**  
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3       The following library references are associated with my testimony:  
4

- 5       1. USPS LR-I-55   SAS Program Used in Calculation of Air Network  
6           Premium Factors  
7       2. USPS LR-I-56   SAS Programs Used in the Calculation of the CNET  
8           Premium  
9       3. USPS LR-I-57   Calculation of Air Network Premium Factors  
10      4. USPS LR-I-58   Calculation of Base Year Distribution Key for  
11           Christmas Air Operations  
12      5. USPS LR-I-59   Calculation of Alaska Air Adjustment  
13      6. USPS LR-I-60   Calculation of Distance-related Transportation Costs  
14      7. USPS LR-I-61   Calculation of Cost of Eagle Daytime Operations  
15

1           **Autobiographical Sketch**  
2

3           My name is John T. Pickett. I am an economist in the Cost Attribution  
4 office in the Finance department at Postal Service Headquarters. I have been  
5 employed as an economist, working mostly on rate case and policy matters, by  
6 the Postal Service since 1984. From 1984 to 1986 and from 1996 to the  
7 present, I worked on transportation costing issues. In the interim, I worked on  
8 service performance measurement, rate levels, rate design econometric demand  
9 analysis and volume forecasting.

10          Prior to joining the Postal Service, I was employed as a consulting  
11 economist by Charles River Associates, the firm of Kennan and Rohr, and Brown  
12 University Professor George Borts. I also taught economics and statistics to  
13 students at Brown University, Salve Regina College and the Naval War College.

14          Prior to my appearance today, I testified four times before the Postal Rate  
15 Commission. In Docket No. C86-3, I testified on parcel post rate levels and  
16 transportation costs. In Docket No. R90-1, I testified on rebuttal on econometric  
17 demand analysis and forecasting issues. In Docket No. MC95-1, I presented the  
18 Postal Service's proposal to reclassify regular rate second-class mail. In Docket  
19 No. R97-1, I provided rebuttal testimony on transportation costing issues.

20          I received a B.A. in economics from Boston University in 1977 and an  
21 M.A. in economics from Brown University in 1980. While at Brown, I completed  
22 all the requirements for a Ph.D. except the dissertation.

1     **I.     Purpose and Scope of Testimony**

2

3             The purpose of my testimony is to provide certain calculations related to  
4     transportation costs. There are five issues discussed in my testimony:

- 5             1. Calculation of Network Premium Costs,  
6             2. New Data Source Used to Calculate the CNET Premium,  
7             3. Calculation of CNET Distribution Key,  
8             4. Calculation of the Alaska Air Adjustment Factor,  
9             5. Calculation of Distance-related Transportation Costs, and  
10            6. Calculation of Eagle Daynet Costs.

11     The programs and spreadsheets used to make these changes are described in  
12     detail in seven Library References USPS-I-55 through USPS-I-61.

13

14     **II.    Network Premium Calculations**

15

16             My testimony describes the mechanics of calculating network premium  
17     percentages for three hub and spoke air networks. The Eagle network is an  
18     overnight hub and spoke operation that links major markets through a hub facility  
19     in Indianapolis. The Western network is a similar, but much smaller, overnight  
20     operation that links major cities in the West. Both these networks operate year  
21     round. The Christmas network (CNET) is a daytime operation that operates for  
22     the two weeks prior to Christmas.

23             As in past cases, costs for these networks have been divided between a  
24     network premium cost and volume-variable non-premium costs. The premium is  
25     defined as the difference between the cost of the hub and spoke operation, and  
26     what it would cost to provide this service with passenger air transportation. The  
27     library references calculate a premium factor which is used as an input on page  
28     30 of the Cost Segment 14 B workpapers of Postal Service witness Meehan  
29     (USPS-T-11). The spreadsheet in LR I-57 calculates the premium costs for each  
30     operation.

1 As described in the testimony of witness Bradley (USPS-T-22), premium  
2 costs of the Eagle and Western networks are treated as incremental to Express  
3 Mail. In the case of CNET, the premium costs are incremental to Priority Mail.  
4 This treatment is consistent with the findings of the Commission in Docket No.  
5 97-1. See PRC Op., R97-1, Vol. 1, at 221-22.

6 In prior years, the linehaul portion of the premium cost of Eagle, WNET,  
7 and CNET were calculated using aircraft route miles. Route miles measure the  
8 distance from a spoke to the hub and back to a spoke. Passenger air linehaul  
9 costs are incurred based on origin-destination great circle miles (ODGCM). To  
10 make the premium calculation consistent with this cost incurrence, the linehaul  
11 portion of the premium costs is now calculated based on ODGCM, that is origin-  
12 destination (spoke to spoke) great circle mileage.

13 An additional modification involves the cost of the use of Eagle planes  
14 during the daytime. The premium relates to the cost of the overnight operation.  
15 Daytime operations charged to Eagle cost accounts must be removed from the  
16 Eagle cost pool before calculating the overnight premium. This modification is  
17 described in Section VII below.

18 USPS Library Reference I-56 contains the SAS code used to calculate the  
19 pounds and pound-miles for the premium calculations. The premium percentage  
20 calculations themselves are contained in an Excel spreadsheet in USPS Library  
21 Reference I-57, pages 1-2.

22

### 23 **III. New CNET Premium Data Source**

24

25 The 1998 Air Contract Support System (ACSS) payment file, called the  
26 ASYS file, used to calculate the 1998 CNET premium was discovered to be  
27 missing data. Specifically, according to the ACSS file, CNET mail volumes for  
28 two principal CNET contractors dropped to zero in the five days prior to  
29 Christmas. Postal operations experts confirmed the obvious, that this volume  
30 discontinuity had not actually occurred; rather the ACSS file was incorrect. A

new source file, the planned versus actual (PVA) file, was used in the base year. The PVA file is derived from the same raw source data, but contains all volumes flown on the CNET in the base year. PVA source data and the necessary calculations of CNET pounds and pound-miles used in the premium calculations can be found in USPS Library Reference I-56.

#### **IV. Calculation of CNET Distribution Key**

The calculation of the CNET distribution key is the same as in prior years. TRACS data by airclass and mailcode are extracted from TRACS expansion programs contained in USPS Library References I-49 and I-51. These data allow the development of pound-miles proportions by airclass and mailcode. The PVA file provides pound-miles by airclass for the CNET operation. These weights are applied to the TRACS data to produce a pound-mile based distribution key for CNET. This key is used in the Cost Segment 14 B workpapers of witness Meehan (USPS-T-11) to distribute CNET and related air costs.

#### **V. Alaska Air Adjustment Factor**

The Postal Service attributes only a portion of non-preferential Alaska air costs using what has come to be known as the Alaska air adjustment factor. The factor is the ratio of the hypothetical costs of transporting mail in Alaska by highway divided by the cost incurred for non-preferential air service. The remaining Alaska non-preferential air costs are treated as institutional. The Alaska adjustment factor uses the same basic methodology as in the last omnibus case. The Postal Service is making one correction to the input data used in this calculation. The adjustment uses the cost per cubic foot-mile by highway contract type as an input. In the past, an unweighted average had been used. In this case, witness Bradley (USPS-T-18) recommends the use of the weighted average cost per cubic foot mile. The factor is calculated in an Excel



1 spreadsheet in USPS Library Reference I-59. (The factor is also recalculated in  
2 Library Reference I-59 using the unweighted average cost per cubic foot mile for  
3 reference purposes only.) The factor is applied to test year non-preferential  
4 Alaska air costs in workpapers of witness Kashani (USPS-T-14).

## 6 **VI. Distance-related Transportation Costs**

8 The rate designs for certain zone-rated products rely on drawing a  
9 distinction between distance- and non-distance-related transportation costs. The  
10 calculation of these costs follows the Commission's accepted methodology used  
11 in prior cases (see Docket No. R97-1, USPS witness Alexandrovich, USPS-T-5,  
12 Workpaper B, Worksheet 14.0.7 and PRC Library Reference LR-6). These  
13 calculations appear in an Excel spreadsheet in USPS Library Reference I-60.

## 15 **VII. Calculation of Eagle Daynet Costs**

17 The Eagle contract has historically been used to operate an overnight hub  
18 and spoke network designed to meet Express Mail service commitments.  
19 Beginning in PQ 2 of FY 1998, the Postal Service began using certain Eagle  
20 planes during the daytime. These daytime Eagle "turns" (as they are called by  
21 operations personnel) were designed to substitute for passenger air  
22 transportation, to better meet the service commitments of so-called two- and  
23 three-day mail (i.e., non-local First-Class and Priority Mail). It is my  
24 understanding that the cost of the Eagle turns in FY 1998 was charged to the  
25 three Eagle accounts (53541, 53543, and 53547).

26 To avoid attributing the costs of this daytime operation to mail carried and  
27 handled in the overnight operation, I developed an estimate of the cost of the  
28 Daynet turns. This estimated cost was removed from the Eagle cost pool and  
29 placed in the Passenger Air cost pool.

30 The Daynet estimate was also removed from the Eagle costs used in the  
31 Eagle premium calculation in Library Reference I-57. As can be seen in the

- 1 spreadsheet, an error was made in the calculation of the premium factors.
- 2 Corrected premium factors are presented in the same spreadsheet, directly
- 3 below the factors used in the transportation B workpapers.
- 4       The calculation of the Daynet costs is contained in Library Reference I-61.
- 5